

Preliminary International Research Report

PCT/DE 03/01860

**I. Basis of the Report**

**Description, Pages**

**1-4 in the originally filed version**

**Claims, No.**

**1-6 received on August 17, 2004 with letter of August 13, 2004**

**Drawings, Pages**

**1/1 in the originally filed version**

**1. Subject**

Closing lid of plastic material

**2. Preamble**

The preamble of the independent Claim 1 is based on D1 (US588273A) wherein is disclosed a closing lid of plastic with a covering element and a sealing element, with the elastic sealing element being connected via engaging elements and counter-engaging elements with the hard covering element; the closing lid further presents an elastic sealing lip; the covering element is designed as hollow cylinder with a partitioning wall; in the frontal region of said hollow cylinder is embedded the contact flange of the sealing element.

**3. Object solved by the application**

Improvement of sealing effect by more durable sealing.

**4. Novelty, inventive activity, industrial applicability**

It appears new and inventive, vis-a-vis the state of the art according to Claim 1, that the covering element - opposite the frontal region - encloses, at least in part, the sealing element by means of a limitation shoulder, with the limitation shoulder being of lesser height than the height of the elastic sealing lips.

Moreover, the subject of the claim, for example, the closing of openings in a motor vehicle body, appears to have industrial application.

Official File Identification No.: PCT/DE2003/01860

Applicant: TRW Automotive Electronics & Components GmbH &  
Co. KG

Attorney's File I.D. 21.190 KHS/va

Date: August 13, 2004

### **Patent Claims**

1. Closing lid (1) made of plastic, especially for tight sealing of an opening (3) in a support plate (2), especially a motor vehicle body, with a covering element (10) and a sealing element (15),

wherein the sealing element (15) consisting of a hard material is connected by means of engaging elements (20) with counter-engaging elements (25) of the covering element consisting of a hard component, and the sealing element (15) presents a contact flange (30) and, opposite same, at a distance, at least one elastic sealing lip (35), and

wherein the covering element (1) is designed as hollow cylinder (42) equipped with a partitioning wall (40), and the hollow cylinder (42) presents in a frontal region equipped with engaging elements (25), a flange (22) in which is embedded the contact flange (30) of the sealing element (2)

**characterized in that**

the covering element (1) - positioned opposite the frontal region - encloses, at least in part, via a limitation shoulder (44) the sealing element (2), wherein the limitation shoulder (44) is of lesser height than the height (H) of the elastic sealing lips (35).

2. Closing lid according to Claim 1, characterized in that the limitation shoulder (44) comprises several projections distributed over the circumference of the covering element (1).
3. Closing lid according to Claim 1, characterized in that the engaging elements (20) of the sealing element (15) are designed as cross-pieces, distributed over the circumference of the closing lid (1) and embeddable in openings (25) of the covering element (10).
4. Closing lid according to one or several of the preceding Claims, characterized in that several sealing lips (35) are successively arranged at the outer circumference of the sealing element (2).
5. Closing lid according to Claim 4, characterized in that the sealing lips (35) have the same height (H) and are directed towards the contact flange (30).
6. Closing lid according to Claim 4, characterized in that the sealing lips have different heights and are facing away from the contact flange.